

ABSTRACT

A method of detecting a biological analyte within a sample (12) is provided. The analyte is one that can be electrically charged or polarized in the presence of an electric field. The sample is placed in proximity with a ferroelectric transducer (14). An electric field is established to polarize the analyte in the sample. An electric response of the ferroelectric transducer resulting from the electric field and indicative of the presence of the analyte in the sample is then sensed. Also provided is a sensor for detecting the analyte within the sample. The sensor has a ferroelectric transducer and first (20) and second electrodes (22) for establishing a potential difference across a sample disposed adjacent to the transducer to generate an electric field in the sample. The sensor may also have an electric signal detector (26) for sensing the electric response.